

ABSTRACT OF THE DISCLOSURE

Methods, systems, and computer program products for synchronizing data stored at one or more message clients with data stored at a message server where the message clients may receive update notifications and may represent the data using different data structures than the message server uses to represent the same data. A token is associated with each data change that occurs at the message server. The message server sends each change and associated token to the message clients. When the message clients request a synchronization, the tokens they received are returned to the message server for comparison with the tokens the message server sent to the message clients. If the message clients do not return a particular token, the message server determines that the clients did not receive the corresponding change and resends the change to the message clients. Tokens may also be used to divide a change into one or more portions, with only one portion being provided initially. Then, in response to receiving the token associated with the portion, the message server may provide the remaining portion of the message to the message clients.

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